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II. <u>REMARKS</u>

Claims 1-8, 10-15, 17-23, 25-32, 34, 35, 37-49, 52-74, 76-87, 90-95, 97-104, 107-113, and 117-135 are pending in this application and stand rejected in the Final Office Action. Applicants have not amended nor cancelled any of the claims and are traversing the rejections. No new matter has been added by this response. For the reasons stated below, applicants believe that the claims are in condition for allowance.

The Examiner rejected:

- 1. Claims 1-8, 10, 14-15, 17-20, 25, 27-30, 32, 34-35, 37-44, 46-49, 52-53, 62-66; 68-73; 76-77; 81-87; 96; 98-99; 101; 107-109, 111-113, 117, 119 under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586);
- 2. Claims 11-13, 21-23, 26, 54-61, 74, 78-80, 91-95, 97, 100, 102-104, 110, 118, 120-135 under 35 U.S.C. §103(a)as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5, 745, 586);
- 3. Claim 45 under 35.U.S.C. §103(a) as being unpatentable over Rabinowitz et al. and *Tagami* and *Greenberger* (U.S. Patent No. 5,870,484);
- 4. Claim 31 under 35.U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* and *Tagami et al.* and *Norris* (U.S. Patent No. 6,611,603); and
- 5. Claim 31 under 35.U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* and *Tagami* and *Kim* (U.S. Patent No. 5,717,465).

1. Response To 35 U.S.C. §103 Rejection

The Examiner rejected claims under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586). The Examiner indicated on pages 4 of the Final Office Action that:

Rabinowitz et al. disclose an audio system comprising ... the transfer function or frequency response does have an appropriate amplitude component and the transfer function include a certain loudness/decibel level as noted in [0030] which is an acoustical aspect of the frequency response)....

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But, upon examination of paragraph [0030] of *Rabinowitz et al.* we find that it actually states:

[0030] If the ambient noise is excessive, the user may be instructed to reduce the ambient noise. If the microphones are inoperative or not matched within a tolerance, the process may be terminated. At step 47, the user may then be instructed to move to a first desired listening location, and issue a prompt that the user is ready to proceed. At step 48, the transfer function (that is, the frequency response) at a first listening position are measured by acoustic measuring circuitry 19, and the measurements may be checked for validity, such as being within an appropriate range of amplitude, that the ambient noise is below a predetermined limit, and that the readings are within a range of coherency, stability over time, and repeatability (indicating that microphone does not move too much during the measurement). One test that can be used to test for these conditions is a linearity test. A signal is radiated and the response measured. The signal is then radiated again, scaled down by some amount, such as -3 dB and the response measured and scaled up by +3 dB. The scaled up response to the second signal is then compared with the response to the first signal. A significant difference may indicate that the amplitude is not within an acceptable range, that the ambient noise is above an acceptable limit, or that the readings are not coherent, stable over time, or repeatable. If there is a significant difference between the scaled up response to the first signal and the response to the first signal, at step 49, verbal or visual instructions, or both, may be broadcast to the user to instruct the user to move to a location at which the sound is within the range of amplitude or to decrease the ambient noise level, by eliminating sources of ambient noise, or to hold the microphone more still while the measurements are being taken. However, if the signal to noise ratio is too low, the system may increase the volume so that the volume is within a range of volumes, so that the signal to noise ratio is adequate, while minimizing the possibility of annoying the user or causing distortion or clipping of the radiated signal. While it is possible to measure a frequency response for the combined output of the speakers, it is generally more desirable to measure the frequency response (and thereafter calculate an equalization pattern) for each loudspeaker unit, rather than for the combined loudspeaker units.

This is opposed to what is claimed in Applicants' claim 1 (using claim 1 as an example for all independent claims). Applicants' claim 1 recites "...recording transfer functions for the

generated acoustic signals at a plurality of listening positions where the transfer functions includes either or both an amplitude component or a phase component and where the transfer

function is a measure of an acoustical aspect of the frequency response...." Thus, the transfer

function is required to be a measure of an acoustical aspect of the frequency response.

On page 4, of the Final Office Action, the Examiner stated that "the transfer function includes a certain loudness/decibel level as noted in [0030]," but Applicants are not claiming INCLUDING A CERTAIN LOUDNESS, rather they claim a "transfer function is a measure of an acoustical aspect of the frequency response." Further, paragraph [0030] of the *Rabinowitz et al.* publication does not show a transfer function that includes a certain loudness/decibel level as described on page 4 of the Final Office Action. Paragraph [0030] describes radiating a signal and measuring the response and then scaling the radiated signal down by -3db and measuring the response. There is no indication that the measured response is or has a transfer function that is a measure of an acoustical aspect of the frequency response. Two separate measured responses are created from different radiated signals in paragraph [0030].

A test is described in the *Rabinowitz et al.* publication using the two separate measured responses, but the test does not generate a transfer function. So, the test cannot generate a transfer function that is a measure of an acoustical aspect of the frequency response as claimed by the Applicants.

The Rabinowitz et al. publication in paragraph [0030] also goes on to describe if the signal-to-noise ratio is low, the system may increase the volume so the volume is within a range of acceptable volumes, so that the signal-to-noise ratio is adequate. But this signal-to-noise ratio is not a transfer function, rather it is either the signal-to-noise ratio of the radiated signal or the signal-to-noise ratio during the test that results from comparing the two measured

responses (the *Rabinowitz et al.* publication is unclear as to which is being described). But, in either case, the *Rabinowitz et al* publication fails to teach every element of claim 1 (and the other independent claims) either individually or when combined with the *Tagami et al.* patent.

Therefore, independent claims 1, 15, 25, 27, 54, 62, 81, and 107 are in condition for allowance and a claims 2-8, 10, 14, 17-20, 28-30, 32, 34-35, 37-44, 46-49, 52-53, 63-66, 68-73, 76-77, 82-87, 96, 98-99, 101, 108-109, 111-113, 117, 119 are also in condition for allowance.

2. Response To 35 U.S.C. §103 Rejection

The Examiner rejected claims 11-13, 21-23, 26, 54-61, 74, 78-80, 91-95, 97, 100, 102-104, 110, 118, 120-135 under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586).

As previously explained, independent claims 1, 15, 25, 27, 54, 62, 81, and 107 are in condition for allowance because the *Rabinowitz et al.* publication and *Tagami et al.* patent when viewed alone or combined fail to teach or describe all of the Applicants' elements claimed in the independent claims. Thus, dependent claims 11-13, 21-23, 26, 54-61, 74, 78-80, 91-95, 97, 100, 102-104, 110, 118, 120-135 are also in condition for allowance.

3. Response To 35 U.S.C. §103 Rejection

The Examiner rejected claim 45 under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586) and *Greenberger* (U.S. Patent No. 5,870,484).

Claim 45 is a dependent claim that depends from allowable independent claim 27 and is therefore in condition for allowance.

4. Response To 35 U.S.C. §103 Rejection

The Examiner rejected claim 31 under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586) and *Norris et al.* (U.S. Patent No. 6,611,603).

Claim 31 is a dependent claim that depends from allowable independent claim 27 and is therefore in condition for allowance.

5. Response To 35 U.S.C. §103 Rejection

The Examiner rejected claim 31 under 35 U.S.C. §103(a) as being unpatentable over *Rabinowitz et al.* (2003/0179891) and *Tagami et al.* (U.S. Patent No. 5,745,586) and *Kim* (U.S. Patent No. 5,717,465).

Claim 31 is a dependent claim that depends from allowable independent claim 27 and is therefore in condition for allowance.

III. <u>CONCLUSION</u>

In view of the foregoing discussion and remarks, Applicants respectfully submit that the claims as now presented, are in condition for allowance, for which action is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to our Deposit Account No. 50-2542. A copy of this sheet is enclosed.

Respectfully submitted,

Dated: $\frac{4}{2}$

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III. <u>CONCLUSION</u>

In view of the foregoing discussion and remarks, Applicants respectfully submit that the claims as now presented, are in condition for allowance, for which action is earnestly solicited.

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